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Statement

I do research and development in storage systems, computer networks, and web services fields. My recent research focus has been on automating systems and improving the performance of networked storage systems via caching and prefetching techniques. I like working with large-scale computing systems and addressing their performance, manageability, scalability, reliability issues. I am also interested in emerging technologies such as service-oriented computing, autonomic computing and implementing distributed applications using web services.

Education

2001-2004: Ph.D. in Computer Science, File and Storage Systems
University of California Santa Cruz, Graduated in September 2004
Advisor: Prof. Ethan L. Miller

1998-2000: M.S. in Computer Science, Computer Networks
University of Maryland Baltimore County (UMBC)

1994-1998: B.S. in Electrical and Electronics Engineering, Control Systems
Bogazici University, Istanbul, Turkey

Honors and Awards

2000-2004: My Ph.D. research has been supported by HP Labs, Palo Alto, CA.

1998-2000: I was granted research assistantship by Maryland Center for Telecommunications Research (MCTR) during my Master's program.

1994-1998: I was supported by Sabanci scholarship, Bosphorus University success scholarship, and Istanbul High School educational fund during my undergraduate study.

1994 Ranked 11th among 1,200,000 students in national university entrance exam in Turkey. I won several awards from governmental, educational, and private institutions.

Work Experience

2005-2006 Systems and Software, HP Labs

Distributed applications using web services. We are developing value-added services around HP's imaging and printing solutions.

2004-2005 Systems and Software, HP Labs

Addressing data management issues in Storage Area Networks (SAN). Automating the process of hot data migration onto fast (NVRAM) storage to improve overall storage performance, to provide workload isolation/differentiation, and to utilize cache resources effectively.

2001-2004: Research Assistant

Storage Systems Research Center (SSRC), UC Santa Cruz

Storage Embedded Networks (SEN) and adaptive caching using machine learning.

Summer 2002,2003: Research Intern, HP Labs, Palo Alto, CA.

Implementation of SAN-level caching (2002). Automating the hot data migration process and enabling distributed operation (2003) via distributed locks and messaging.

Work Experience (continued)

Summer 2000, 2001: *Research Intern, HP Labs, Palo Alto, CA.*

Storage Technologies Department (STD)

Implementation of Internet SCSI (iSCSI) storage interconnect protocol in FreeBSD (2000). Improving iSCSI performance for transfers over Wide-Area Networks (2001).

Fall 2000: *Teaching Experience (Instructor)*

I taught the "CMSC291 Special Topics in Computer Science: C++" class at University of Maryland Baltimore County (UMBC). Taught object-oriented design techniques and basic data structures to sophomore-junior computer science students in UMBC.

1998 – 2000: *Research Assistant, UMBC*

Maryland Center for Telecommunications Research (MCTR)

Providing Quality of Service (QoS) within IP networks (DiffServ, IntServ).

1998 – 1999: *Teaching Assistant, UMBC*

CMSC411: Computer Architecture class

Publications

Refereed Publications

1- Ismail Ari, Melanie Gottwals, Dick Henze, Performance boosting and workload isolation in Storage Area Networks using SANCACHE, In Proceedings of the 23rd IEEE / 14th NASA Goddard Conference on Mass Storage Systems and Technologies (MSST) 2006.

2- Ismail Ari, Ethan L. Miller, Caching support for push-pull data dissemination using data snooping routers, In Proceedings of the 10th International Conference on Parallel and Distributed Systems (ICPADS'04).

3- Ismail Ari, Melanie Gottwals, Dick Henze, SANBoost: Automated SAN-Level Caching in Storage Area Networks, In Proceedings of the First International Conference on Autonomic Computing (ICAC'04)

4- Ismail Ari, Bo Hong, Ethan L. Miller, Scott Brandt and Darrell D. E. Long, Managing Flash Crowds on the Internet, In Proceedings of the 11th IEEE/ACM International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems (MASCOTS'03) pp. 246-249.

5- Ismail Ari, Ahmed Amer, Robert Gramacy, Ethan L. Miller, Scott Brandt and Darrell D. E. Long, Adaptive Caching using Multiple Experts, In Proceedings of the 2002 Workshop on Distributed Data and Structures (WDAS'02) pp. 143-158.

6- Robert Gramacy, Manfred Warmuth, Scott Brandt and Ismail Ari, Adaptive Caching By Refetching, In Proceedings of the 2002 Neural Information Processing Systems (NIPS'02) pp. 1465-1472.

Granted Patents and Patent Applications

1- Ismail Ari, Melanie Gottwals, Dick Henze, Providing an alternative caching scheme at the storage area network level, U.S. Patent US2006/0026229(A1), Feb 2, 2006.

(3 pending applications)

Technical Reports

1- Ismail Ari, Storage Embedded Networks (SEN) and Adaptive Caching using Multiple Experts (ACME), Technical Report UCSC-CRL-03-01, (Ph.D. Proposal), 2003.

2- Ismail Ari, Multicache Simulation Environment, Version 1.0 Reference Guide, Technical Report UCSC-CRL-03-02, 2003.

3- Ismail Ari, Bo Hong, Ethan L. Miller, Scott A. Brandt, Darrell D. E. Long, Modeling, Analysis and Simulation of Flash Crowds on the Internet, Technical Report UCSC-CRL-03-15, 2004.

4- Ismail Ari, Using Statistical Correlation For Dependency Analysis Of Cache Replacement Policies, Technical Report UCSC-CRL-03-16, 2004.

Other publications and talks can be accessed at:

<http://www.cse.ucsc.edu/~ari>

Other Academic Work

Program Committee Member: CHIMIT'07.

External Reviewer for: IEEE TOC, ACM TODS, ACM TOC, SIGMETRICS'04, ICDCS'03, FAST'02, The Computer Journal, MASCOTS'04-05, MSST'04-05.

Attended Conferences: MSST'06, MASCOTS'03, FAST('02'03'04), OSDI('02'04), WDAS'02, I wrote conference summaries for USENIX "login" magazine

Memberships

ACM, IEEE, USENIX

References

Advisor: Prof. Ethan L. Miller
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(831) 459-2616

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